Available online at www.sciencedirect.com
SCIENCE DIRECT
ELSEVIER
Ultrasonics 42 (2004) 1139–1147
Ultrasonics
www.elsevier.com/locate/ultras

Author Index to Volume 42

Abascal, R., see Galán, J.M. 877
Abrar, A. and Cochran, S.
Multilayer piezocomposite structures with piezoceramic volume fractions determined by mathematical optimisation 259
Abrar, A., see Lee, C.K. 485
Abrar, A., Zhang, D., Su, B., Button, T.W., Kirk, K.J. and Cochran, S.
1–3 connectivity piezoelectric ceramic–polymer composite transducers made with viscous polymer processing for high frequency ultrasound 479
Adam, D., see Behar, V. 1101
Adler, L., see Rokhlin, S.I. 1037
Agabian, S., see Konofagou, E.E. 951
Akalin, M., Merdan, N., Kocak, D. and Usta, I.
Effects of ultrasonic energy on the wash fastness of reactive dyes 161
Akalin, M., see Merdan, N. 165
Akino, Y., see Saijo, Y. 753
Aleshin, V., Gusev, V. and Zaitsev, V.
Propagation of initially bi-harmonic sound waves in a 1D semi-infinite medium with hysteretic non-linearity 1053
Aleshin, V., see Van Den Abeele, K. 1017
Amari, M., Gusev, V. and Joly, N.
Transient unidirectional acoustic streaming in annular resonators 573
Anaya, J.J., see Izquierdo, M.A.G. 843
Anaya, J.J., see Hernández, M.G. 865
Anisimkin, I.V.
New type of an acoustic plate mode: quasi-longitudinal normal wave 1095
Arai, H., see Saijo, Y. 699
Ask, P., see Kvikliené, A. 301
Assaad, J., Hladky, A.-C. and Cugnet, B.
Application of the FEM and the BEM to compute the field of a transducer mounted in a rigid baffle (3D case) 443
Assaad, J., see El youbi, F. 803
Assaad, J., see Grondel, S. 819
Astashev, V.K., see Babitsky, V.I. 29
Attal, J., see Caplain, E. 569
Azbaid, A., see San Emeterio, J.L. 277
Azzoni, R., Cabitza, P. and Parrini, M.
Sonographic evaluation of subacromial space 683

Babitsky, V.I., Astashev, V.K. and Kalashnikov, A.N.
Autoresonant control of nonlinear mode in ultrasonic transducer for machining applications 29
Babitsky, V.I., Mitrofanov, A.V. and Silberschmidt, V.V.
Ultrasonically assisted turning of aviation materials: simulations and experimental study 81
Babnik, A., see Jezeršek, M. 37
Bae, D.H., see Kim, Y.H. 545
Baldewsing, R.A., de Korte, C.L., Schaar, J.A., Mastik, F. and van der Steen, A.F.W.
Finite element modeling and intravascular ultrasound elastography of vulnerable plaques: parameter variation 723
Ballad, E.M., Vezirov, S.Yu., Pfleiderer, K., Solodov, I.Yu. and Busse, G.
Nonlinear modulation technique for NDE with air-coupled ultrasound 1031
Bamberger, J.A. and Greenwood, M.S.
Measuring fluid and slurry density and solids concentration non-invasively 563
Bamberger, J.A. and Greenwood, M.S.
Using ultrasonic attenuation to monitor slurry mixing in real time 145
Bambi, G., Morganti, T., Ricci, S., Boni, E., Guidi, F., Palombo, C. and Tortoli, P.
A novel ultrasound instrument for investigation of arterial mechanics 731
Baptista, P., see Varandas, J. 689
Barrows, L., see Rapoport, N.Y. 943
Batra, N.K., see Hirsekorn, M. 231
Beeby, S., see Harris, N. 139
Behar, V., and Adam, D.
Parameter optimization of pulse compression in ultrasound imaging systems with coded excitation 1101
Bèle, B., see Darmon, M. 237
Belloncle, G., Luppé, F., Franklin, H. and Conoir, J.-M.
Influence of the slow wave on the relation between the angular resonances and the leaky guided modes properties for a poroelastic plate embedded in water 511
Benammar, A., see Drai, R. 831
Benbartaoui, H., see Bettayeb, F. 853
Benchaala, A., see Drai, R. 831
Berger, W.A., see Radulescu, E.G. 367
Bernard, B., see van Wamel, A. 903
Bettayeb, F., Rachedi, T. and Benbartaoui, H.
An improved automated ultrasonic NDE system by wavelet and neuron networks 853
Billson, D.R., see McIntosh, J.S. 447
Billson, D.R., see Neild, A. 859
Birer, A., see Melodelima, D. 937
Blanchard, E.J., see Yachmenev, V.G. 87
Blindt, R., see Gachagan, A. 57
Boltryk, P., Hill, M., Keary, A., Phillips, B., Robinson, H. and White, P.
An ultrasonic transducer array for velocity measurement in underwater vehicles 473
Bond, L.J., see Greenwood, M.S. 531
Boni, E., see Bambi, G. 731
Bonneau, S., see Defontaine, M. 745
Borges, S.S., see Korn, M. 585
Borodina, I.A., see Kuznetsova, I.E. 179
Borodina, I.A., see Zaitsev, B.D. 373

doi:10.1016/S0041-624X(04)00224-0

Borsboom, J., Ting Chin, C. and de Jong, N.
Experimental evaluation of a non-linear coded excitation method for contrast imaging 671
Bosch, I., see Vergara, L. 813
Bou Matar, O., see Certon, D. 465
Bou Matar, O., see Vila, M. 1061
Bouakaz, A., see Postema, M. 759
Bouakaz, A., see van Wamel, A. 903
Bouakaz, A., see Voormolen, M.M. 739
Bounaïm, A., Holm, S., Chen, W. and Ødegård, Å.
Sensitivity of the ultrasonic CARI technique for breast tumor detection using a FETD scheme 919
Brodsky, A., see Greenwood, M.S. 531
Buiochi, F., Martinez, O., Ullate, L.G. and Montero de Espinosa, F.
3D computational method to study the focal laws of transducer arrays for NDE applications 871
Burgess, L., see Greenwood, M.S. 531
Buryak, V.V., see Mordyuk, B.N. 109
Busse, G., see Ballad, E.M. 1031
Busse, G., see Solodov, I. 1011
Button, T.W., see Abrar, A. 479
Buyle-Bodin, F., see Goueygou, M. 889
Buyle-Bodin, F., see Piwakowski, B. 395

Cabitza, P., see Azzoni, R. 683
Calmon, P., see Darmon, M. 237
Campos-Pozuelo, C., see Vanhille, C. 315
Campos-Pozuelo, C., see Vanhille, C. 1123
Canoğlu, S., Gültekin, B.C. and Yükseloğlu, S.M.
Effect of ultrasonic energy in washing of medical surgery gowns 113
Caplain, E., Despaux, G., Ferrandis, J.-Y. and Attal, J.
Wide-range viscoelastic measurement using resonating sensors 569
Caplain, E., see Martinez, L. 507
Cardoni, A., Lucas, M., Cartmell, M. and Lim, F.
A novel multiple blade ultrasonic cutting device 69
Carmeliet, J., see Van Den Abeele, K. 1017
Cartmell, M., see Cardoni, A. 69
Castaings, M., Hosten, B. and François, D.
The sensitivity of surface guided modes to the bond quality between a concrete block and a composite plate 1067
Cathignol, D., see Melodelima, D. 937
Cattiaux, G., see Mahaut, S. 791
Cavalli, R., see Guiot, C. 927
Certon, D., Ferin, G., Bou Matar, O., Guyonvarch, J., Remenieras, J.P. and Patat, F.
Influence of acousto-optic interactions on the determination of the diffracted field by an array obtained from displacement measurements 465
Chakhlov, S., see Schmitz, V. 249
Chapelon, J.Y., see Mitri, F.G. 537
Chati, F., see Léon, F. 297
Chávez, J.A., see Salazar, J. 155
Chen, W., see Bounaïm, A. 919
Cheong, Y.-M., Lee, D.-H. and Jung, H.-K.
Ultrasonic guided wave parameters for detection of axial cracks in feeder pipes of PHWR nuclear power plants 883
Cheong, Y.-M., see Kim, Y.H. 551
Chiba, A., Haijima, H. and Wu, W.C.
Effect of sonication on the electroless Ni–B deposited powder from acid bath 617
Chimenti, D.E., see Holland, S.D. 957
Christensen, D.A., see Rapoport, N.Y. 943
Clark, M., see Hong, Y. 515
Clark, M., Sharples, S.D. and Somekh, M.
Optimisation using measured Green's function for improving spatial coherence in acoustic measurements 205
Clark, M., see Sharples, S.D. 647
Clement, G.T.
Perspectives in clinical uses of high-intensity focused ultrasound 1087
Clement, M., Vergara, L., Sangrador, J., Iborra, E. and Sanz-Hervás, A.
SAW characteristics of AlN films sputtered on silicon substrates 403
Closset, E., see Mitri, F.G. 537
Cochran, S., see Abrar, A. 259
Cochran, S., see Abrar, A. 479
Cochran, S., see Lee, C.K. 485
Cochran, S., see Schmarje, N. 439
Collet, B.
Recursive surface impedance matrix methods for ultrasonic wave propagation in piezoelectric multilayers 189
Conde, C., see Vanhille, C. 315
Conoir, J.-M., see Belloncle, G. 511
Conoir, J.M., see Léon, F. 297
Cranston, D., see Kennedy, J.E. 931
Cugnet, B., see Assaad, J. 443
Curletto, S., Parodi, C. and Trucco, A.
On the stability of wideband beam patterns with respect to weighting and envelope fluctuations 997
Curpian, J., see Gil Pita, R. 361

Döbeli, M., see Vollmann, J. 657
Danelon, D., see Guiot, C. 927
Darmon, M., Calmon, P. and Bèle, B.
An integrated model to simulate the scattering of ultrasounds by inclusions in steels 237
Davies, R.R., see McIntosh, J.S. 447
Dawson, S.L., see Konofagou, E.E. 951
Defontaine, M., Bonneau, S., Padilla, F., Gomez, M.A., Nasser Eddin, M., Laugier, P. and Patat, F.
2D arrays device for calcaneus bone transmission: an alternative technological solution using crossed beam forming 745
de Jong, N., see Borsboom, J. 671
de Jong, N., see Postema, M. 759
de Jong, N., see van Wamel, A. 903
de Jong, N., see Voormolen, M.M. 739
de Korte, C.L., see Baldewsing, R.A. 723
Declercq, N.F., Degrieck, J. and Leroy, O.
On the influence of fatigue on ultrasonic polar scans of fiber reinforced composites 173
Declercq, N.F., Degrieck, J. and Leroy, O.
The representation of 3D gaussian beams by means of inhomogeneous waves 273
Degrieck, J., see Declercq, N.F. 173
Degrieck, J., see Declercq, N.F. 273
Delebarre, C., see Grondel, S. 819
del Río, L.M., Jiménez, A., López, F., Rosa, F.J., Rufo, M.M. and Paniagua, J.M.
Characterization and hardening of concrete with ultrasonic testing 527
Delsanto, P.P., see Hirsekorn, M. 231
Despaux, G., see Caplain, E. 569
Dias, J., see Varandas, J. 689
Dicker, A.P., see Forsberg, F. 325
Dixon, S., and Palmer, S.B.
Wideband low frequency generation and detection of Lamb and Rayleigh waves using electromagnetic acoustic transducers (EMATs) 1129

Dos Santos, S., see Vila, M. 1061
Downey, D.B., see Fenster, A. 769
Drai, R., Benammar, A. and Benchaala, A.
Signal processing for the detection of multiple imperfection echoes drowned in the structural noise 831
Drevermann, A., Pickmann, C., Tiefers, R. and Zimmermann, G.
Online process control for directional solidification by ultrasonic pulse echo technique 105
Dual, J., see Haake, A. 75
Dual, J., see Profunser, D.M. 641
Dual, J., see Vollmann, J. 657
Duclos, J., see Wilkie-Chancellier, N. 377
Duflo, H., see Wilkie-Chancellier, N. 377

Eissa, S., see Joe Au, Y.H. 149
El youbi, F., Grondel, S. and Assaad, J.
Signal processing for damage detection using two different array transducers 803
El-Kettani, M.E.-C., Luppé, F. and Guillet, A.
Guided waves in a plate with linearly varying thickness: experimental and numerical results 807
Eom, H.-S., see Song, S.-J. 283
Ermert, H., see Keitmann-Curdes, O. 989
Every, A.G., see Pluta, M. 243

Fain, H.D., see Rapoport, N.Y. 943
Fellah, Z.E.A., see Mitri, F.G. 537
Fenster, A., Surry, K.J.M., Mills, G.R. and Downey, D.B.
3D ultrasound guided breast biopsy system 769
Ferin, G., see Certon, D. 465
Ferrandis, J.-Y., see Caplain, E. 569
Ferriere, R., see Mensah, S. 677
Fnine, A., see Goueygou, M. 889
Fnine, A., see Piwakowski, B. 395
Forsberg, F.
Ultrasonic biomedical technology: marketing versus clinical reality 17
Forsberg, F., Ro, R.J., Potoczek, M., Liu, J.B., Merritt, C.R.B., James, K.M., Dicker, A.P. and Nazarian, L.N.
Assessment of angiogenesis: implications for ultrasound imaging 325
Forsberg, F., see Liu, J.B. 337
Forsyth, S.A., see Hill, R. 253
François, D., see Castaings, M. 1067
Franklin, H., see Belloncle, G. 511
Fritsch, C. and Veca, A.
Detecting small flaws near the interface in pulse-echo 797

Gachagan, A., McNab, A., Blindt, R., Patrick, M. and Marriott, C.
A high power ultrasonic array based test cell 57
Gaglioti, P., see Guiot, C. 927
Galán, J.M. and Abascal, R.
Remote characterization of defects in plates with viscoelastic coatings using guided waves 877
Gammell, P.M., see Harris, G.R. 349
Gao, Z., see Rapoport, N.Y. 943
García, M.J., see Salazar, J. 155
Gavrilenko, I.S., see Nadutov, V.M. 47
Gerhard, H., see Solodov, I. 1011
Gil Pita, R., Vicen, R., Rosa, M., Jarabo, M.P., Vera, P. and Curpian, J.
Ultrasonic flaw detection using radial basis function networks (RBFNs) 361
Gil, R., see Vicen, R. 355
Gindre, M., see Martinez, L. 507
Gleeson, F.V., see Kennedy, J.E. 931
Godefroit, J.-L., see Mahaut, S. 791
Godoy, G., see Martinez, O. 977
Golebiewski, Z., see Miecznik, P. 629
Gomez, M.A., see Defontaine, M. 745
Gosálbez, J., see Vergara, L. 813
Gouedard, G., see Martinez, L. 507
Goueygou, M., see Piwakowski, B. 395
Goueygou, M., Piwakowski, B., Fnine, A., Kaczmarek, M. and Buyle-Bodin, F.
NDE of two-layered mortar samples using high-frequency Rayleigh waves 889
Govekar, E., Klemenčič, J., Kokalj, T., Jahrsdörfer, B., Mužič, P. and Grabec, I.
Characterisation of a laser droplet formation process by acoustic emission 99
Grabec, I., see Govekar, E. 99
Green Jr., R.E.
Non-contact ultrasonic techniques 9
Greenwood, M.S., Brodsky, A., Burgess, L., Bond, L.J. and Hamad, M.
Ultrasonic diffraction grating spectroscopy and characterization of fluids and slurries 531
Greenwood, M.S., see Bamberger, J.A. 145
Greenwood, M.S., see Bamberger, J.A. 563
Griesmar, P., see Martinez, L. 507
Grill, W., see Ngwa, W. 983
Grill, W., see Pluta, M. 243
Grondel, S., see El youbi, F. 803
Grondel, S., Assaad, J., Delebarre, C. and Moulin, E.
Health monitoring of a composite wingbox structure 819
Gudkov, V.V. and Zhevstovskikh, I.V.
Dispersion of doppleron-phonon modes in strong coupling regime 199
Gudra, T. and Opielinski, K.J.
Applying spectrum analysis and cepstrum analysis to examine the cavitation threshold in water and in salt solution 621
Gudra, T. and Opielinski, K.J.
Ultrasonic transducers working in the air with the continuous wave within the 50–500 kHz frequency range 453
Gudra, T., see Opielinski, K.J. 705
Guidi, F., see Bambi, G. 731
Guiffard, B., see Lebrun, L. 501
Guillet, A., see El-Kettani, M.E.-C. 807
Guiot, C., Cavalli, R., Gaglioti, P., Danelon, D., Musacchio, C., Trotta, M. and Todros, T.
Temperature monitoring using ultrasound contrast agents: in vitro investigation on thermal stability 927
Gültekin, B.C., see Canoğlu, S. 113
Gusev, V., see Aleshin, V. 1053
Gusev, V., see Amari, M. 573
Guyomar, D., see Lebrun, L. 501
Guyomar, D., see Richard, C. 417
Guyonvarch, J., see Certon, D. 465

Haake, A. and Dual, J.
Positioning of small particles by an ultrasound field excited by surface waves 75
Haijima, H., see Chiba, A. 617
Hamad, M., see Greenwood, M.S. 531
Hansen, C., see Keitmann-Curdes, O. 989
Harada, Y., see Tsujino, J. 121
Harada, Y., see Tsujino, J. 125

Harris, G.R., Gammell, P.M., Lewin, P.A. and Radulescu, E.G.
Interlaboratory evaluation of hydrophone sensitivity calibration from 0.1 to 2 MHz via time delay spectrometry 349
Harris, N.R., see Townsend, R.J. 319
Harris, N., Hill, M., Shen, Y., Townsend, R.J., Beeby, S. and White, N.
A dual frequency, ultrasonic, microengineered particle manipulator 139
Hashii, H., see Tsujino, J. 131
Haumesser, L., see Vila, M. 1061
Hernández, M.G., Anaya, J.J., Ullate, L.G. and Ibañez, A.
Effect of the fluid in the inclusions of cement paste on the ultrasonic velocity 865
Hernández, M.G., see Izquierdo, M.A.G. 843
Hertzberg, J., see Mukdadi, O.M. 1111
Hill, M., see Boltryk, P. 473
Hill, M., see Harris, N. 139
Hill, M., see Townsend, R.J. 319
Hill, R., Forsyth, S.A. and Macey, P.
Finite element modelling of ultrasound, with reference to transducers and AE waves 253
Hill, R., see Tyler, T.J. 169
Hirao, M., see Nakamura, N. 491
Hirao, M., see Ogi, H. 183
Hirsekorn, M., Delsanto, P.P., Batra, N.K. and Matic, P.
Modelling and simulation of acoustic wave propagation in locally resonant sonic materials 231
Hirsekorn, S., see Paolo Delsanto, P. 1005
Hladky, A.-C., see Assaad, J. 443
Hoff, L., see Kviklienė, A. 301
Holland, S.D. and Chimenti, D.E.
High contrast air-coupled acoustic imaging with zero group velocity lamb modes 957
Holm, S., see Bounaïm, A. 919
Hong, Y., Sharples, S.D., Clark, M. and Somekh, M.G.
Rapid and accurate analysis of surface and pseudo-surface waves using adaptive laser ultrasound techniques 515
Hongoh, M., see Tsujino, J. 131
Hoshimiya, T. and Miyamoto, K.
Applications of linear-motor-driven photoacoustic microscope 993
Hosten, B., see Castaings, M. 1067
Hozumi, N., Yamashita, R., Lee, C.-K., Nagao, M., Kobayashi, K., Saijo, Y., Tanaka, M., Tanaka, N. and Ohtsuki, S.
Time–frequency analysis for pulse driven ultrasonic microscopy for biological tissue characterization 717
Hutchins, D.A., see McIntosh, J.S. 447
Hutchins, D.A., see Neild, A. 859
Hwang, S.-H., see Ko, W.-B. 611
Hynynen, K., see Konofagou, E.E. 951

Ibañez, A., see Hernández, M.G. 865
Iborra, E., see Clement, M. 403
Ihara, S., see Tsujino, J. 121
Ihara, S., see Tsujino, J. 125
Iida, Y., Kozuka, T., Tuziuti, T. and Yasui, K.
Sonochemically enhanced adsorption and degradation of methyl orange with activated aluminas 635
Iida, Y., see Tuziuti, T. 597
Iida, Y., see Yasui, K. 579
Ince, N.H. and Tezcanli-Güyer, G.
Impacts of pH and molecular structure on ultrasonic degradation of azo dyes 591
Ince, N.H., see Tezcanli-Güyer, G. 603
Irie, T., Ohdaira, E. and Itoh, K.
Study for imaging of inside bone using FM-chirp pulse compression system 713
Itoh, K., see Irie, T. 713
Iula, A. and Pappalardo, M.
A general model of the axle vibration in piezoelectric motors 291
Izbicki, J.L., see Martinez, L. 383
Izquierdo, M.A.G., Hernández, M.G., Anaya, J.J. and Martinez, O.
Speckle reduction by energy time–frequency filtering 843
Izquierdo, M.A.G., see Martínez, O. 977

Jaeger, M.D., see Liu, J.B. 337
Jahrsdörfer, B., see Govekar, E. 99
James, K.M., see Forsberg, F. 325
Janerot-Sjöberg, B., see Kviklienė, A. 301
Jang, T.S., Lee, S.S. and Kim, Y.G.
Surface-bonded fiber optic Sagnac sensors for ultrasound detection 837
Jansson, T., see Kviklienė, A. 301
Jarabo, M.P., see Gil Pita, R. 361
Jarabo, P., see Vicen, R. 355
Jasiuniene, E., see Kazys, R.J. 267
Jezeršek, M., Milanič, M., Babnik, A. and Možina, J.
Real-time optodynamic monitoring of pulsed laser decoating rate 37
Jiménez, A., see del Río, L.M. 527
Joe Au, Y.H., Eissa, S. and Jones, B.E.
Receiver operating characteristic analysis for the selection of threshold values for detection of capping in powder compression 149
Joly, N., see Amari, M. 573
Jones, B.E., see Joe Au, Y.H. 149
Jones, B.E., see Yan, T. 431
Joshi, S.G., see Kuznetsova, I.E. 179
Joshi, S.G., see Zaitsev, B.D. 373
Jung, H.-K., see Cheong, Y.-M. 883
Jung, H.-K., see Kim, Y.H. 551
Jurkonis, R., see Kviklienė, A. 301

Kaczmarek, M., see Goueygou, M. 889
Kalashnikov, A.N., see Babitsky, V.I. 29
Kasahara, K., see Tsujino, J. 121
Kasahara, K., see Tsujino, J. 125
Kazys, R.J., Mazeika, L. and Jasiuniene, E.
Ultrasonic fields radiated through matching layers with nonparallel boundaries 267
Keary, A., see Boltryk, P. 473
Keitmann-Curdes, O., Hansen, C., Knoll, P., Meier, H. and Ermert, H.
Ultrasonic imaging of sheet metal forming 989
Kennedy, J.E., Wu, F., ter Haar, G.R., Gleeson, F.V., Phillips, R.R., Middleton, M.R. and Cranston, D.
High-intensity focused ultrasound for the treatment of liver tumours 931
Kim, H.-B., see Mukdadi, O.M. 1111
Kim, H.-J., see Song, S.-J. 283
Kim, J.-H., see Song, S.-J. 283
Kim, Y.G., see Jang, T.S. 837
Kim, Y.H., see Kwon, S.D. 557
Kim, Y.H., Song, S.-J., Bae, D.H. and Kwon, S.-D.
Assessment of material degradation due to corrosion-fatigue using a backscattered Rayleigh surface wave 545

Kim, Y.H., Song, S.-J., Kwon, S.-D., Cheong, Y.-M. and Jung, H.-K.
Determination of ultrasonic wave velocities and phase velocity dispersion curves of an Inconel 600 plate using resonant ultrasound spectroscopy and leaky Lamb waves 551
Kim, Y.H., see Song, S.-J. 283
Kirk, K.J., see Abrar, A. 479
Kirk, K.J., see Lee, C.K. 485
Kirk, K.J., see Schmarje, N. 439
Kiuchi, M., see Matsukawa, M. 391
Klemenčič, J., see Govekar, E. 99
Kline-Schoder, R.J., see Liu, J.B. 337
Knoll, P., see Keitmann-Curdes, O. 989
Ko, W.-B., Nam, J.-H. and Hwang, S.-H.
The oxidation of fullerene[C_{60}] with various amine N-oxides under ultrasonic irradiation 611
Kobayashi, K., see Hozumi, N. 717
Kobayashi, K., see Saijo, Y. 699
Kocak, D., see Akalin, M. 161
Kocak, D., see Merdan, N. 165
Koda, S., see Tuziuti, T. 597
Kodama, M., see Murayama, R. 825
Koehler, B., see Schubert, F. 781
Kokalj, T., see Govekar, E. 99
Konofagou, E.E., Ottensmeyer, M., Agabian, S., Dawson, S.L. and Hynynen, K.
Estimating localized oscillatory tissue motion for assessment of the underlying mechanical modulus 951
Konofagou, E.E.
Quo vadis elasticity imaging? 331
Korn, M., Borges, S.S., Maia, P.R.M., Lima, J.L.F.C. and Lapa, R.A.S.
Reagent generation for chemical analysis assisted by ultrasonic irradiation 585
Kozuka, T., see Iida, Y. 635
Krenning, B.J., see Voormolen, M.M. 739
Kuznetsova, I.E., Zaitsev, B.D., Borodina, I.A., Teplyh, A.A., Shurygin, V.V. and Joshi, S.G.
Investigation of acoustic waves of higher order propagating in plates of lithium niobate 179
Kuznetsova, I.E., see Zaitsev, B.D. 373
Kvikliené, A., Jurkonis, R., Ressner, M., Hoff, L., Jansson, T., Janerot-Sjöberg, B., Lukoševičius, A. and Ask, P.
Modelling of nonlinear effects and the response of ultrasound contrast micro bubbles: simulation and experiment 301
Kwon, S.D., Park, C.H., Song, S.-J. and Kim, Y.H.
Evaluation of beryllium stiffening on zirconium plate using backscattered leaky Lamb waves 557
Kwon, S.-D., see Kim, Y.H. 551
Kwon, S.-D., see Kim, Y.H. 545
Kwon, Y. and Roh, Y.
Development of SH-SAW sensors for underwater measurement 409
Kynor, D.B., see Liu, J.B. 337

Lai, E., see Tyler, T.J. 169
Lambert, A.H., see Yachmenev, V.G. 87
Lancée, C.T., see Voormolen, M.M. 739
Landa, M., Novák, V., Sedlák, P. and Šittner, P.
Ultrasonic characterization of Cu–Al–Ni single crystals lattice stability in the vicinity of the phase transition 519
Langenberg, K.J., see Schmitz, V. 249
Lapa, R.A.S., see Korn, M. 585
Lathia, J.D., Leodore, L. and Wheatley, M.A.
Polymeric contrast agent with targeting potential 763
Laugier, P., see Defontaine, M. 745
Lausch, R., see Schubert, F. 897
Lázaro, J.C., see Rodriguez, M.A. 847
Lebrun, L., Sebald, G., Guiffard, B., Richard, C., Guyomar, D. and Pleska, E.
Investigations on ferroelectric PMN–PT and PZN–PT single crystals ability for power or resonant actuators 501
Ledbetter, H., see Ogi, H. 183
Lee, C.K., Cochran, S., Abrar, A., Kirk, K.J. and Placido, F.
Thick aluminium nitride films deposited by room-temperature sputtering for ultrasonic applications 485
Lee, C.-K., see Hozumi, N. 717
Lee, D.-H., see Cheong, Y.-M. 883
Lee, H.S., see Richard, C. 417
Lee, S., see Roh, Y. 413
Lee, S.S., see Jang, T.S. 837
Leodore, L., see Lathia, J.D. 763
Léon, F., Chati, F. and Conoir, J.M.
Acoustic scattering by an elastic elliptic cylinder in water: numerical results and experiments 297
Lerner, A., Stein, H. and Soudry, M.
Compound high-energy limb fractures with delayed union: our experience with adjuvant ultrasound stimulation (exogen) 915
Leroy, O., see Declercq, N.F. 173
Leroy, O., see Declercq, N.F. 273
Lewin, P.A., see Harris, G.R. 349
Lewin, P.A.
Quo vadis medical ultrasound? 1
Lewin, P.A., see Radulescu, E.G. 367
Lim, F., see Cardoni, A. 69
Lima, J.L.F.C., see Korn, M. 585
Lingvall, F.
A method of improving overall resolution in ultrasonic array imaging using spatio-temporal deconvolution 961
Liu, J.B., see Forsberg, F. 325
Liu, J.B., Peterson, J.N., Forsberg, F., Jaeger, M.D., Kynor, D.B. and Kline-Schoder, R.J.
Acoustic microscopy system: design and preliminary results 337
López, F., see del Rio, L.M. 527
López, F., see Vicen, R. 355
Lucas, M., see Cardoni, A. 69
Lukoševičius, A., see Kvikliené, A. 301
Luppé, F., see Belloncle, G. 511
Luppé, F., see El-Kettani, M.E.-C. 807

Macey, P., see Hill, R. 253
Mahaut, S., Godefroit, J.-L., Roy, O. and Cattiaux, G.
Application of phased array techniques to coarse grain components inspection 791
Maia, P.R.M., see Korn, M. 585
Makiyama, S., see Murayama, R. 825
Marriott, C., see Gachagan, A. 57
Martinez, L., Caplain, E., Serfaty, S., Griesmar, P., Gouedard, G. and Gindre, M.
Chirp-Z analysis for sol–gel transition monitoring 507
Martinez, D., see Vicen, R. 355
Martinez, O., Godoy, G., Izquierdo, M.A.G. and Ullate, L.G.
Application of vernier thinning techniques to segmented annular arrays 977
Martinez, L., Morvan, B. and Izbicki, J.L.
Space-time-wave number-frequency $Z(x,t,k,f)$ analysis of SAW generation on fluid filled cylindrical shells 383
Martinez, O., see Buiochi, F. 871
Martinez, O., see Izquierdo, M.A.G. 843

Martins, R., see Varandas, J. 689
Mastik, F., see Baldewsing, R.A. 723
Matic, P., see Hirsekorn, M. 231
Matsuda, O. and Wright, O.B.
Laser picosecond acoustics in a two-layer structure with oblique probe light incidence 653
Matsukawa, M., Murata, S., Matsumoto, T., Matsutani, T. and Kiuchi, M.
Brillouin scattering study on the wave properties in thin SiC films 391
Matsumoto, T., see Matsukawa, M. 391
Matsutani, T., see Matsukawa, M. 391
Mazeika, L., see Kazys, R.J. 267
McIntosh, J.S., Neild, A., Hutchins, D.A., Billson, D.R., Noble, R.A. and Davies, R.R.
Modelling of the radiated field from multi-element capacitive micromachined ultrasonic transducers 447
McNab, A., see Gachagan, A. 57
Meier, H., see Keitmann-Curdes, O. 989
Meier, A.H., see Vollmann, J. 657
Melodelima, D., Prat, F., Birer, A., Theillère, Y. and Cathignol, D.
Comparison of two methods of treatment for intraluminal thermal ablation using an ultrasound cylindrical phased array 937
Mensah, S. and Ferriere, R.
Diffraction tomography: a geometrical distortion free procedure 677
Merdan, N., Akalin, M., Kocak, D. and Usta, I.
Effects of ultrasonic energy on dyeing of polyamide (microfibre)/Lycra blends 165
Merdan, N., see Akalin, M. 161
Merritt, C.R.B., see Forsberg, F. 325
Middleton, M.R., see Kennedy, J.E. 931
Miecznik, P. and Golebiewski, Z.
Ultrasonic relaxation study of preferential solvation in quasi-two-components aqueous solutions of amides and zinc salts 629
Milanič, M., see Jezeršek, M. 37
Mills, G.R., see Fenster, A. 769
Miralles, R., see Vergara, L. 813
Mitri, F.G., Fellah, Z.E.A., Closset, E., Trompette, P. and Chapelon, J.Y.
Determination of object resonances by vibro-acoustography and their associated modes 537
Mitrofanov, A.V., see Babitsky, V.I. 81
Miyakawa, T., see Saijo, Y. 695
Miyamoto, K., see Hoshimiya, T. 993
Montero de Espinosa, F., see Buiochi, F. 871
Montero de Espinosa, F.R., see Torres, M. 787
Mordyuk, B.N. and Prokopenko, G.I.
Mechanical alloying of powder materials by ultrasonic milling 43
Mordyuk, B.N., Mordyuk, V.S. and Buryak, V.V.
Ultrasonic drawing of tungsten wire for incandescent lamps production 109
Mordyuk, V.S., see Mordyuk, B.N. 109
Mordyuk, B.N., see Nadutov, V.M. 47
Morganti, T., see Bambi, G. 731
Morvan, B., see Martinez, L. 383
Moulin, E., see Grondel, S. 819
Možina, J., see Jezeršek, M. 37
Mukdadi, O.M., Kim, H.-B., Hertzberg, J., and Shandas, R.
Numerical modeling of microbubble backscatter to optimize ultrasound particle image velocimetry imaging: initial studies 1111
Murata, S., see Matsukawa, M. 391
Murayama, R., Makiyama, S., Kodama, M. and Taniguchi, Y.
Development of an ultrasonic inspection robot using an electromagnetic acoustic transducer for a Lamb wave and an SH-plate wave 825
Musacchio, C., see Guiot, C. 927
Mužič, P., see Govekar, E. 99

Nadutov, V.M., Mordyuk, B.N., Prokopenko, G.I. and Gavrilenko, I.S.
Mössbauer and X-ray studies of Fe-powder mechanically alloyed with C using power ultrasonics 47
Nagao, M., see Hozumi, N. 717
Nagy, P.B., see Ruiz, A. 665
Nakamura, N., Ogi, H. and Hirao, M.
Resonance ultrasound spectroscopy with laser-Doppler interferometry for studying elastic properties of thin films 491
Nakamura, N., see Ogi, H. 183
Nam, J.-H., see Ko, W.-B. 611
Nasser Eddin, M., see Defontaine, M. 745
Nazarian, L.N., see Forsberg, F. 325
Neild, A., Hutchins, D.A. and Billson, D.R.
Imaging using air-coupled polymer-membrane capacitive ultrasonic arrays 859
Neild, A., see McIntosh, J.S. 447
Nemoto, Y., see Saijo, Y. 699
Ngwa, W., Wannemacher, R. and Grill, W.
Phase-sensitive acoustic microscopy of polymer thin films 983
Nitta, S., see Saijo, Y. 753
Nitta, S.-i., see Saijo, Y. 695
Nitta, S.-i., see Saijo, Y. 699
Noble, R.A., see McIntosh, J.S. 447
Novák, V., see Landa, M. 519
Nowicki, A., see Radulescu, E.G. 367

Ødegård, Å., see Bounaïm, A. 919
Oeffinger, B.E. and Wheatley, M.A.
Development and characterization of a nano-scale contrast agent 343
Ogi, H., Nakamura, N., Hirao, M. and Ledbetter, H.
Determination of elastic, anelastic, and piezoelectric coefficients of piezoelectric materials from a single specimen by acoustic resonance spectroscopy 183
Ogi, H., see Nakamura, N. 491
Ohdaira, E., see Irie, T. 713
Ohtsuki, S., see Hozumi, N. 717
Olofsson, T.
Semi-sparse deconvolution robust to uncertainties in the impulse responses 969
Opielinski, K.J. and Gudra, T.
Three-dimensional reconstruction of biological objects' internal structure heterogeneity from the set of ultrasonic tomograms 705
Opielinski, K.J., see Gudra, T. 453
Opielinski, K.J., see Gudra, T. 621
Ottensmeyer, M., see Konofagou, E.E. 951
Owada, N., see Saijo, Y. 753

Padilla, F., see Defontaine, M. 745
Palmer, S.B., see Dixon, S. 1129
Palombo, C., see Bambi, G. 731
Paniagua, J.M., see del Río, L.M. 527
Paolo Delsanto, P. and Hirsekorn, S.
A unified treatment of nonclassical nonlinear effects in the propagation of ultrasound in heterogeneous media 1005
Pappalardo, M., see Iula, A. 291
Park, C.H., see Kwon, S.D. 557

Park, J.-S., see Song, S.-J. 283
Parodi, C., see Curletto, S. 997
Parrini, M., see Azzoni, R. 683
Patat, F., see Certon, D. 465
Patat, F., see Defontaine, M. 745
Patrick, M., see Gachagan, A. 57
Pernod, P., see Yamamoto, K. 1049
Peterson, J.N., see Liu, J.B. 337
Pfleiderer, K., see Ballad, E.M. 1031
Pfleiderer, K., see Solodov, I. 1011
Phillips, B., see Boltryk, P. 473
Phillips, R.R., see Kennedy, J.E. 931
Pickmann, C., see Drevermann, A. 105
Piwakowski, B., Fnine, A., Goueygou, M. and Buyle-Bodin, F.
Generation of Rayleigh waves into mortar and concrete samples 395
Piwakowski, B., see Goueygou, M. 889
Placido, F., see Lee, C.K. 485
Pleska, E., see Lebrun, L. 501
Pluta, M., Every, A.G. and Grill, W.
Inversion of acoustic diffraction fields in anisotropic solids 243
Postema, M., Bouakaz, A. and de Jong, N.
Noninvasive microbubble-based pressure measurements: a simulation study 759
Potoczek, M., see Forsberg, F. 325
Prat, F., see Melodelima, D. 937
Preobrazhensky, V., see Yamamoto, K. 1049
Profunser, D.M., Vollmann, J. and Dual, J.
Determination of the material properties of microstructures by laser based ultrasound 641
Profunser, D.M., see Vollmann, J. 657
Prokopenko, G.I., see Mordyuk, B.N. 43
Prokopenko, G.I., see Nadutov, V.M. 47

Rachedi, T., see Bettayeb, F. 853
Radulescu, E.G., see Harris, G.R. 349
Radulescu, E.G., Lewin, P.A., Wójcik, J., Nowicki, A. and Berger, W.A.
The influence of finite aperture and frequency response of ultrasonic hydrophone probes on the determination of acoustic output 367
Ramos, A., see Rodríguez, M.A. 847
Ramos, A., see Ruiz, A. 459
Ramos, A., see San Emeterio, J.L. 277
Rapoport, N.Y., Christensen, D.A., Fain, H.D., Barrows, L. and Gao, Z.
Ultrasound-triggered drug targeting of tumors in vitro and in vivo 943
Remenieras, J.P., see Certon, D. 465
Repetto, S. and Trucco, A.
A stochastic approach for the apodization of very short arrays 425
Ressner, M., see Kvikliené, A. 301
Ricci, S., see Bambi, G. 731
Richard, C., Lee, H.S. and Guyomar, D.
Thermo-mechanical stress effect on 1–3 piezocomposite power transducer performance 417
Richard, C., see Lebrun, L. 501
Ro, R.J., see Forsberg, F. 325
Robinson, H., see Boltryk, P. 473
Rodríguez, M.A., San Emeterio, J.L., Lázaro, J.C. and Ramos, A.
Ultrasonic flaw detection in NDE of highly scattering materials using wavelet and Wigner–Ville transform processing 847
Roh, Y. and Lee, S.
Development of a SAW duplexer with one-chip isolation circuits 413
Roh, Y., see Kwon, Y. 409
Rokhlin, S.I., Wang, L., Xie, B., Yakovlev, V.A. and Adler, L.
Modulated angle beam ultrasonic spectroscopy for evaluation of imperfect interfaces and adhesive bonds 1037
Rosa, F.J., see del Río, L.M. 527
Rosa, M., see Gil Pita, R. 361
Rosa, M., see Vicen, R. 355
Roy, O., see Mahaut, S. 791
Ruiz, A., Ramos, A. and San Emeterio, J.L.
Estimation of some transducer parameters in a broadband piezoelectric transmitter by using an artificial intelligence technique 459
Ruiz, A., see San Emeterio, J.L. 277
Rufo, M.M., see del Río, L.M. 527
Ruiz, A. and Nagy, P.B.
Laser-ultrasonic surface wave dispersion measurements on surface-treated metals 665

Saffari, N., see Stride, E. 907
Saijo, Y., Miyakawa, T., Sasaki, H., Tanaka, M. and Nitta, S.-i.
Acoustic properties of aortic aneurysm obtained with scanning acoustic microscopy 695
Saijo, Y., Nitta, S.-i., Kobayashi, K., Arai, H. and Nemoto, Y.
Development of an ultra-portable echo device connected to USB port 699
Saijo, Y., Tanaka, A., Owada, N., Akino, Y. and Nitta, S.
Tissue velocity imaging of coronary artery by rotating-type intravascular ultrasound 753
Saijo, Y., see Hozumi, N. 717
Saillant, J.F., see Schmarje, N. 439
Sakamaki, N., see Tsujino, J. 121
Sakamoto, S.-i. and Watanabe, Y.
The experimental studies of thermoacoustic cooler 53
Salazar, J., Turó, A., Chávez, J.A. and García, M.J.
Ultrasonic inspection of batters for on-line process monitoring 155
San Emeterio, J.L., Ramos, A., Sanz, P.T., Ruiz, A. and Azbaid, A.
Modeling NDT piezoelectric ultrasonic transmitters 277
San Emeterio, J.L., see Rodríguez, M.A. 847
San Emeterio, J.L., see Ruiz, A. 459
Sangrador, J., see Clement, M. 403
Santos, J., see Varandas, J. 689
Sanz, P.T., see San Emeterio, J.L. 277
Sanz-Hervás, A., see Clement, M. 403
Sasaki, H., see Saijo, Y. 695
Sayir, M.B., see Veres, I.A. 495
Schaar, J.A., see Baldewsing, R.A. 723
Schmarje, N., Saillant, J.F., Kirk, K.J. and Cochran, S.
Imaging with lithium niobate/epoxy composites 439
Schmitz, V., Langenberg, K.J. and Chakhlov, S.
Calculation of high frequency ultrasonic signals for shear wave insonification in solid material 249
Schubert, F.
Numerical time-domain modeling of linear and nonlinear ultrasonic wave propagation using finite integration techniques—theory and applications 221
Schubert, F. and Koehler, B.
Numerical time-domain simulation of diffusive ultrasound in concrete 781

Schubert, F., see Van Den Abeele, K. 1017
Schubert, F., Wiggenhauser, H. and Lausch, R.
On the accuracy of thickness measurements in impact-echo testing of finite concrete specimens—numerical and experimental results 897
Sebald, G., see Lebrun, L. 501
Sedlák, P., see Landa, M. 519
Serfaty, S., see Martinez, L. 507
Shandas, R., see Mukdadi, O.M. 1111
Sharples, S.D., Clark, M. and Somekh, M.
Surface acoustic wavefront sensor using custom optics 647
Sharples, S.D., see Clark, M. 205
Sharples, S.D., see Hong, Y. 515
Shen, Y., see Harris, N. 139
Shimizu, M., see Tsujino, J. 125
Shurygin, V.V., see Kuznetsova, I.E. 179
Silberschmidt, V.V., see Babitsky, V.I. 81
Šittner, P., see Landa, M. 519
Solodov, I., Pfleiderer, K., Gerhard, H. and Busse, G.
Nonlinear acoustic approach to material characterisation of polymers and composites in tensile tests 1011
Solodov, I.Yu., see Ballad, E.M. 1031
Somekh, M., see Clark, M. 205
Somekh, M., see Sharples, S.D. 647
Somekh, M.G., see Hong, Y. 515
Song, S.-J., see Kim, Y.H. 545
Song, S.-J., see Kim, Y.H. 551
Song, S.-J., see Kwon, S.D. 557
Song, S.-J., Park, J.-S., Kim, Y.H., Kim, H.-J., Kim, J.-H. and Eom, H.-S.
Comparison of modeling approaches to ultrasonic testing at near critical angles 283
Soudry, M., see Lerner, A. 915
Spies, M.
Analytical methods for modeling of ultrasonic nondestructive testing of anisotropic media 213
Sprik, R. and Tourin, A.
Time reversed wave propagation experiments in chaotic micro-structured cavities 775
Stein, H., see Lerner, A. 915
Stride, E. and Saffari, N.
The potential for thermal damage posed by microbubble ultrasound contrast agents 907
Su, B., see Abrar, A. 479
Surry, K.J.M., see Fenster, A. 769

Tanaka, A., see Saijo, Y. 753
Tanaka, M., see Hozumi, N. 717
Tanaka, M., see Saijo, Y. 695
Tanaka, N., see Hozumi, N. 717
Taniguchi, Y., see Murayama, R. 825
Taoda, H., see Tuziuti, T. 597
ten Cate, F., see van Wamel, A. 903
ten Cate, F.J., see Voormolen, M.M. 739
Teplyh, A.A., see Kuznetsova, I.E. 179
ter Haar, G.R., see Kennedy, J.E. 931
Tezcanli-Güyer, G. and Ince, N.H.
Individual and combined effects of ultrasound, ozone and UV irradiation: a case study with textile dyes 603
Tezcanli-Güyer, G., see Ince, N.H. 591
Theillère, Y., see Melodelima, D. 937
Theobald, P., see Yan, T. 431
Tiefers, R., see Drevermann, A. 105
Tinel, A., see Wilkie-Chancellier, N. 377
Ting Chin, C., see Borsboom, J. 671
Todros, T., see Guiot, C. 927
Torres, M. and Montero de Espinosa, F.R.
Ultrasonic band gaps and negative refraction 787
Tortoli, P., see Bambi, G. 731
Tourin, A., see Sprik, R. 775
Townsend, R.J., see Harris, N. 139
Townsend, R.J., Hill, M., Harris, N.R. and White, N.M.
Modelling of particle paths passing through an ultrasonic standing wave 319
Trompette, P., see Mitri, F.G. 537
Trotta, M., see Guiot, C. 927
Trucco, A., see Curletto, S. 997
Trucco, A., see Repetto, S. 425
Tsujino, J., Harada, Y., Ihara, S., Kasahara, K., Shimizu, M. and Ueoka, T.
Configurations of high-frequency ultrasonics complex vibration systems for packaging in microelectronics 125
Tsujino, J., Hongoh, M., Yoshikuni, M., Hashii, H. and Ueoka, T.
Welding characteristics of 27, 40 and 67 kHz ultrasonic plastic welding systems using fundamental- and higher-resonance frequencies 131
Tsujino, J., Ihara, S., Harada, Y., Kasahara, K. and Sakamaki, N.
Characteristics of coated copper wire specimens using high frequency ultrasonic complex vibration welding equipments 121
Tsujino, J. and Ueoka, T.
Characteristics of large capacity ultrasonic complex vibration sources with stepped complex transverse vibration rods 93
Turó, A., see Salazar, J. 155
Tuziuti, T., Yasui, K., Iida, Y., Taoda, H. and Koda, S.
Effect of particle addition on sonochemical reaction 597
Tuziuti, T., see Iida, Y. 635
Tuziuti, T., see Yasui, K. 579
Tyler, T.J., Hill, R. and Lai, E.
Friction generated ultrasound from geotechnical materials 169

Ueoka, T., see Tsujino, J. 93
Ueoka, T., see Tsujino, J. 131
Ueoka, T., see Tsujino, J. 125
Ullate, L.G., see Buiochi, F. 871
Ullate, L.G., see Hernández, M.G. 865
Ullate, L.G., see Martínez, O. 977
Usta, I., see Akalin, M. 161
Usta, I., see Merdan, N. 165

Van Den Abeele, K., Schubert, F., Aleshin, V., Windels, F. and Carmeliet, J.
Resonant bar simulations in media with localized damage 1017
Van Den Abeele, K., see Windels, F. 1025
Vander Meulen, F., see Vila, M. 1061
van der Steen, A.F.W., see Baldewsing, R.A. 723
van Deventer, J.
One dimensional modeling of a step-down ultrasonic densitometer for liquids 309
Vanhille, C., and Campos-Pozuelo, C.
A numerical formulation for nonlinear ultrasonic waves propagation in fluids 1123
Vanhille, C., Conde, C. and Campos-Pozuelo, C.
Finite-difference and finite-volume methods for nonlinear standing ultrasonic waves in fluid media 315
van Wamel, A., Bouakaz, A., Bernard, B., ten Cate, F. and de Jong, N.
Radionuclide tumour therapy with ultrasound contrast microbubbles 903

Varandas, J., Baptista, P., Santos, J., Martins, R. and Dias, J.
VOLUS—a visualization system for 3D ultrasound data 689
Veca, A., see Fritsch, C. 797
Vera, P., see Gil Pita, R. 361
Veres, I.A. and Sayir, M.B.
Wave propagation in a wooden bar 495
Vergara, L., see Clement, M. 403
Vergara, L., Gosálbez, J., Miralles, R. and Bosch, I.
On estimating the center frequency of ultrasonic pulses 813
Vezirov, S.Yu., see Ballad, E.M. 1031
Vicen, R., Gil, R., Jarabo, P., Rosa, M., López, F. and Martínez, D.
Non-linear filtering of ultrasonic signals using neural networks 355
Vicen, R., see Gil Pita, R. 361
Vila, M., Vander Meulen, F., Dos Santos, S., Haumesser, L. and Bou Matar, O.
Contact phase modulation method for acoustic nonlinear parameter measurement in solid 1061
Vollmann, J., Profunser, D.M., Meier, A.H., Döbeli, M. and Dual, J.
Pulse laser acoustics for the characterization of inhomogeneities at interfaces of microstructures 657
Vollmann, J., see Profunser, D.M. 641
Voormolen, M.M., Bouakaz, A., Krenning, B.J., Lancée, C.T., ten Cate, F.J. and de Jong, N.
Feasibility of 3D harmonic contrast imaging 739

Wang, L., see Rokhlin, S.I. 1037
Wannemacher, R., see Ngwa, W. 983
Watanabe, Y., see Sakamoto, S.-i. 53
Wheatley, M.A., see Lathia, J.D. 763
Wheatley, M.A., see Oeffinger, B.E. 343
White, N., see Harris, N. 139
White, N.M., see Townsend, R.J. 319
White, P., see Boltryk, P. 473
Wiggenhauser, H., see Schubert, F. 897
Wilkie-Chancellier, N., Duflo, H., Tinel, A. and Duclos, J.
Experimental study and signal analysis in the Lamb wave conversion at a bevelled edge 377
Windels, F. and Van Den Abeele, K.
The influence of localized damage in a sample on its resonance spectrum 1025
Windels, F., see Van Den Abeele, K. 1017
Wójcik, J., see Radulescu, E.G. 367
Wright, O.B., see Matsuda, O. 653
Wu, F., see Kennedy, J.E. 931
Wu, W.C., see Chiba, A. 617

Xie, B., see Rokhlin, S.I. 1037

Yachmenev, V.G., Blanchard, E.J. and Lambert, A.H.
Use of ultrasonic energy for intensification of the bio-preparation of greige cotton 87
Yakovlev, V.A., see Rokhlin, S.I. 1037
Yamamoto, K., Pernod, P. and Preobrazhensky, V.
Visualization of phase conjugate ultrasound waves passed through inhomogeneous layer 1049
Yamashita, R., see Hozumi, N. 717
Yan, T., Theobald, P. and Jones, B.E.
A conical piezoelectric transducer with integral sensor as a self-calibrating acoustic emission energy source 431
Yasui, K., see Iida, Y. 635
Yasui, K., Tuziuti, T. and Iida, Y.
Optimum bubble temperature for the sonochemical production of oxidants 579
Yasui, K., see Tuziuti, T. 597
Yoshikuni, M., see Tsujino, J. 131
Yükseloğlu, S.M., see Canoğlu, S. 113

Zaitsev, B.D., Borodina, I.A., Kuznetsova, I.E. and Joshi, S.G.
Transmission of surface acoustic waves through the interface based on discontinuity of electrical boundary conditions on surface of potassium niobate 373
Zaitsev, B.D., see Kuznetsova, I.E. 179
Zaitsev, V., see Aleshin, V. 1053
Zhang, D., see Abrar, A. 479
Zhevstovskikh, I.V., see Gudkov, V.V. 199
Zimmermann, G., see Drevermann, A. 105

Available online at www.sciencedirect.com
SCIENCE DIRECT
ELSEVIER
Ultrasonics 42 (2004) 1149–1152
Ultrasonics
www.elsevier.com/locate/ultras

Subject Index to Volume 42

1–3 piezocomposite transducer, 349
27, 40 and 67 kHz ultrasonic plastic welding, 131
2D arrays, 745, 977
2D-FT, 803
3D, 739
3D imaging, 17
3D ultrasound, 769

Aberration correction, 647
Aberration layer, 1049
Absorbance, 597
Acid bath, 617
Acoustic aberrations, 205, 647
Acoustic characterization, 337
Acoustic emission, 9, 99, 149, 253, 431
Acoustic imaging, 1031
Acoustic microscopy, 337, 695
Acoustic nonlinearity, 1011
Acoustic scattering, 297
Acoustic sensors, 647
Acoustic streaming, 573
Acoustic wave transformation, 1095
Acoustical arrays, 443
Acoustical impedance, 155
Acousto-optics, 1049
Acoustoelasticity, 519
Activated alumina, 635
Adhesive bonds, 1037
Adiabatic modes, 807
Adsorption, 635
Advanced dynamic flow, 17
Advanced oxidation, 603
Air coupled, 447
Air(gas)coupling, 9
Air-coupled, 859
Air-coupled ultrasound, 957, 1031
Airborne transducers, 453
AlN, 403
Aluminium nitride, 485
Angiogenesis, 325
Angular resonances, 511
Anisotropic elastic constants, 491
Anisotropic media, 243
Anisotropy, 213, 515
Annular resonator, 573
Aortic aneurysm, 695
Array apodization, 425
Arrays, 447, 859
Arterial mechanics, 731
Atherosclerosis, 753
Attenuation, 713
Attenuation measurement, 563
Audible frequency range, 231
Automation, 585
Autoparametric systems, 69
Autoresonance, 29
Azo, 591
Azo dye, 603

B-flow, 17
B-mode image, 713
Backscattered ultrasound, 545, 557
Backscattering noise, 813
Backward radiation profile, 557
Batter, 155
Beam forming, 791
Beam pattern optimization, 425
Beamforming, 961
BEM, 877
Biodegradable polymer, 763
Biological structure, 705
Biomedical ultrasonics, 1
Biot, 511
Blood flow velocimetry, 1111
Bond testing, 1067
Bonding quality, 1005
Bone, 713, 745
Born approximation, 237
Boundary element method, 443
Bounded beams, 273
Breast biopsy, 769
Breast cancer detection, 919
Brillouin scattering, 391
Broadband, 459
Bulk waves, 641

CAD, 249
Calibration, 349, 689
Cancer, 931
Cancer targeting, 343, 763
Capping, 149
CARI technique, 919
Catheter position, 723
Cavitation, 57
Cavitation threshold, 621
Center frequency, 813
Cepstrum analysis, 621
CFD, 319
Chaotic cavity, 775
Chemotherapy, 943
Chirp, 671
Chirp-Z Transform, 507
Circular ultrasonic transducers, 267
Clinical, 331
cMUTs, 447
Coded excitation, 17, 671, 1101
Collagen, 695
Color coatings, 37
Combination resonances, 69
Complex $V(z)$, 983
Complex vibration converter, 125
Complex vibration system with many ultrasonic transducers, 93
Complex vibration welding tip, 93
Complex waves, 273
Complexing, 629
Composite, 439, 1067
Composite wingbox structure, 819
Composites, 1011
Compound imaging, 17
Compressive strength, 527
Concentration, 319
Concrete, 395, 527, 781, 889, 897, 1067
Condition monitoring, 149, 169
Conductivity, 199
Conical piezoelectric transducer, 431
Contact transducer calibration, 1061
Continuous wave, 453
Contrast agent, 343, 671, 739, 763
Contrast agents, 301
Contrast enhanced ultrasound imaging, 325
Contrast microbubbles, 903
Conventional washing, 113
Conversion, 377, 807
Coronary artery, 753
Correlation velocity log, 473
Corrosion degradation, 545
Corrosion-fatigue, 545
Cotton, 87
Crack detection, 883
Crossed beam former, 745
Crystal acoustics, 519
Cut-off frequency, 551
Cutting, 69
Cylindrical shell, 383

Damage detection, 803
Damage localisation, 1025
Decolorization, 591
Deconvolution, 797, 969
Defect, 213
Defect detection, 249
Degradation, 395
Densitometer, 309
Density, 155

doi:10.1016/S0041-624X(04)00225-2

Diagnostic and therapeutic ultrasound, 1
Diffraction, 309
Diffraction grating, 531
Diffraction tomography, 677
Diffusion, 657
Diffusive ultrasound, 781
Digital-pulse-echo methods, 519
Directional solidification, 105
Dislocation pile-up, 109
Dispersion, 199, 495, 665, 1095
Displacement, 951
Distensibility, 731
Doppler processing, 731
Doppler velocity log, 473
Doppleron, 199
Droplet detachment, 99
Droplet formation, 99
Drug biodistribution, 943
Drug targeting, 943
Dyestuff, 591
Dynamic range, 797
Dynamic response, 243

Echo PIV, 1111
Echocardiography, 739
Echography, 699
Efficiency, 417
Elastic constants, 183
Elastic displacements, 1095
Elastic wave propagation, 775
Elasticity, 331
Elastodynamic finite integration technique, 221, 781
Electroless deposition, 617
Electrolyte, 629
Electromagnetic acoustic transducer (EMAT), 825
Electromagnetic feedthrough, 403
Elliptic cylinder, 297
EMAT, 1129
EMATs, 9
Energy source, 431
Environment protection, 635
Enzyme, 87
Estimation, 459
Exogen, 915
Expected penalty cost, 149
Experiment, 495
Extended field of view imaging, 17
Ex vivo imaging, 337

Fast instrumentation, 569
Fatigue, 173
FDTD, 677
Fe–C-powder, 47
Feeder pipe inspection, 883
FEM, 877
Ferroelectric, 501
Fiber optic sensors, 837
Fiber reinforced composites, 173
Finite element method, 443
Finite element modeling, 253
Finite element modelling, 57, 81
Finite element simulation, 723
Finite element time domain method, 919
Finite-element simulations, 537
Fit, 495
Flaw detection, 361, 797
Flow system, 585
Fluid characterization, 531
FM-chirp pulse compression, 713
Focal laws, 871
Fourier inversion, 243
Fourier series, 297
Freehand 3D ultrasound, 689
Frequency characteristics of plastic welding, 131
Frequency components, 53
Frequency mixing, 1053
Frequency shift, 1025
Frequency spectra, 131
Frequency spectrum, 713
Friction, 169
Functionally graded material (FGM), 657

Gas pipe line, 825
Gaussian beams, 273
Gelation, 507
Genetic algorithms, 459
Global matrix, 189
Grain noise reduction, 847
Granular materials, 169
Guided modes, 957
Guided wave, 877, 883
Guided waves, 1067
Guided waves in anisotropic media, 189

Hardening, 527
Harmonic imaging, 17, 739, 1111
Health monitoring, 819
HIFU, 931
High intensity ultrasound, 937
High power, 57
High power ultrasonics, 69
High temperature, 439
High-frequency complex vibration, 125
High-frequency ultrasound, 479
High-power ultrasonics, 29, 315
High-power ultrasound, 1123
Higher order acoustic wave, 179
Holography, 9
Human anti-angiogenesis therapy, 325
Hybridization of acoustic waves, 179
Hydrazone, 591
Hydrophone, 349
Hydroxyl radical, 591
Hydroxyl radicals, 603
Hyperthermia, 927
Hysteresis, 1005, 1017
Hysteretic non-linearity, 1053

Ilizarov external fixation, 915
Image and signal processing, 791
Image guided biopsy, 769
Imaging, 331, 859, 993
Impact-echo testing, 897
In-depth profiling, 657
In-line sensor, 145
Incandescent lamps, 109
Inclusion, 237
Inconel 600, 551
Induced transparency, 1053
Inhomogeneous waves, 273
Inspection, 213, 825
Interferometer, 653
Interferometers, 9
Internal friction, 183
Intraluminal, 937
Intravascular ultrasound, 753
Intravascular ultrasound elastography, 723
In vessel, 145
Isolation network, 413

Joining of coated wire, 40, 60 and 100 kHz complex vibration systems, 121

Lamb wave, 383, 819, 825, 1129
Lamb waves, 377, 803, 837, 957
Large capacity ultrasonic complex vibration source, 93
Laser acoustics, 657
Laser beam 2, 99
Laser cleaning, 37
Laser interferometry, 465
Laser ultrasonics, 37, 515, 653
Laser ultrasound, 647
Laser-Doppler interferometry, 183, 491
Laser-ultrasonics, 665
Lasers, 9
Leaky guided modes, 511
Leaky Lamb wave, 551, 557
$LiNbO_3$ transducer, 337
Linear arrays, 465
Liquid density measurement, 563
$LiTaO_3$, 409
Lithium niobate, 179, 439
Liver, 931
Local resonances, 231

Machining, 29
Macrophage, 695
MALDI-TOF MS, 611
Mammography, 677
Material characterization, 865
Mechanical alloying, 43, 47
Mechanical properties, 641, 983
Mechanics of fracture, 1011
Medical imaging, 689
Membrane, 641
MEMS inspection, 657
Mesoscopic, 1005
Methyl orange, 635
Micro-strip line, 413
Microbubble diffusion, 759
Microbubble ultrasound contrast agents, 907
Microbubbles, 343
Microdamage, 1017
Microfluidics, 139, 573
Micromanipulation, 75
Micromechanics, 865
Microscope, 993
Microstructure, 81
Mixing characterization, 145
Modeling, 213, 249, 277, 283, 291
Modelling, 231, 1005
Modified Rayleigh wave, 391
Modulation, 1031
Modulation measurements, 1037
Modulus, 331, 951

Monitoring, 37
Morphology, 983
Mössbauer spectroscopy, 47
Multi-element transducers, 803
Multi-Gaussian beam model, 283
Multigrained material, 1005
Multilayer, 259, 653
Murine xenograft models, 325

Nanobubbles, 343
Naphthol, 591
Navigation, 473
NDE, 889, 989, 1005
NDT, 355, 527, 797
NDT pulsers, 277
Near critical angle, 283
Near-field, 677
Nearfield, 447
Negative electro-mechanical coupling, 373
Negative refraction, 787
Neural network, 361
Neural networks, 355
Neuron networks, 853
Ni–B fine powder, 617
Noise reduction, 355
Non-contact, 9
Non-contact ultrasound, 1129
Non-destructive testing, 569
Non-invasive, 145, 563
Non-invasive temperature monitoring, 927
Non-linear acoustics, 573
Non-linear filtering, 355
Non-linear resonance, 1017
Non-linear ultrasound, 1025
Non-linear wave evolution, 1053
Non-linearity, 501, 1017
Nonclassical, 1005
Nondestructive evaluation, 665
Nondestructive testing, 221
Noninvasive pressure measurements, 759
Nonlinear, 301
Nonlinear acoustic waves, 315
Nonlinear acoustics, 1025
Nonlinear analysis, 1111
Nonlinear elasticity, 1005
Nonlinear interfaces, 1037
Nonlinear parameter, 1061
Nonlinear propagation, 367, 1123
Nonlinear resonance, 1025
Nonlinear vibration control, 29
Nonlinearity, 1025, 1031
Nonparallel boundaries, 267
Numerical modelling, 315, 443, 1123
Numerical simulation, 579
Numerical simulations, 231, 1005

Oblique probe incidence, 653
OH radical, 579
Online process control, 105
On-line sensor, 563
Open fractures, 915
Optimal design, 413
Optimisation, 205, 259
Optoacoustic, 37
Oscillator, 409
Oscillatory, 951
Ovarian carcinoma, 943
Oxidation of fullerene[C_{60}], 611
Oxidizing, 585
Ozone, 603

Packaging in microelectronics, 125
Particle, 597
Particle manipulation, 139
Particle size, 531
Peak finding, 473
Personal computer, 699
Phase conjugation, 1049
Phase transformation, 43
Phase transitions, 519
Phase velocity dispersion, 889
Phase velocity dispersion curves, 551
Phased arrays, 791
Phased-array, 937
Photoacoustic, 993
Photopic imaging, 17
Piezoelectric coefficients, 183
Piezoelectric composite, 259, 417
Piezoelectric composites, 479
Piezoelectric material, 183
Piezoelectric motor, 291
Piezoelectric multilayered structure, 189
Piezoelectric transducer, 819
Piezoelectric transducers, 277
Piezoelectric transduction, 485
Piezoelectric transmitters, 459
Plane waves, 937
Plate modes, 1095
Pollen, 993
Polyamide, 165
Polymer thin film, 983
Polymeric micelles, 943
Polymers, 1011
Porosity, 865
Porous media, 511
Portable, 699
Positioning, 75
Potassium niobate, 373
Powder compression, 149
Precessional motion, 291
Process control, 145, 531, 563
Profilometry, 37
Protein sensor, 409
PSAM, 983
Pseudo-surface waves, 515
Pseudo-acoustic waves, 515
Pulse compression, 1101
Pulse echo technique, 105
Pulse envelope, 997
Pulse inversion harmonic imaging, 325
Pulse-echo inspection, 237, 969
Pump–probe technique, 641

Quartz plate, 1095

Radiation force, 319, 537, 951
Radio-frequency signal, 753
Radionuclide, 903
Range equation, 453
RAY TRACING, 249
Rayleigh surface wave, 545
Rayleigh wave, 1129
Rayleigh waves, 889
Rayleigh–Sommerfield integral, 283
RBFN, 361
Reactive dyes, 161
Reagent generation, 585
Real cepstrum, 813
Receiver operating characteristic, 149
Reciprocity, 775
Reflection, 807
Reflection coefficient, 563
Registration, 689
Resonance frequency, 537
Resonant transducer, 501
Resonant ultrasound spectroscopy, 491, 551
Resonant-ultrasound spectroscopy, 183
Resonating sensors, 569
Retro-focusing, 1049
Robust, 969
Rotating traveling wave, 291

S_1, 957
Safety indices, 367
SAFT, 249
Sagnac interferometer, 837
SAW, 403, 647
SAW duplexer, 413
Scattering, 205
Scattering materials, 843
Scholte wave, 383
Self-calibration, 431
Self-reciprocity, 1061
Self-sustained sound, 53
Sensitivity fluctuations, 997
SH-plate wave, 825
SH-SAW, 409
Sheet metal forming, 989
Short-pulse method, 297
Shoulder, 683
Si substrate, 403
SiC film, 391
Signal analysis, 853
Signal processing, 377, 383, 507, 569, 717, 843
Signal to noise ratio, 831
Silicon-nitride, 641
SimonRUS, 1025
Simulated annealing, 425
Simulation, 301, 309, 871
Simulation of ultrasonic fields, 267
Single crystal, 501
Sizing, 249
Slurry concentration, 145
Slurry concentration measurement, 563
Slurry density measurement, 563
SNR enhancement, 843
Soft tissue, 951
Solid solution, 43
Sonic crystals, 231
Sonication, 617
Sonochemistry, 579, 597, 635
Sonography, 683
Sound attenuation, 231
Sound speed, 717
Sound velocity, 507
Spatial averaging, 367
Spatial light modulator, 515
Spatio-temporal deconvolution, 961
Spectral analysis, 621

Speed of sound measurement, 563
SPICE, 309
Split spectrum processing, 831
Sputtering, 403
Stainless steel, 791
Standing waves, 319
Stochastic media, 205
Strain artefacts, 723
Structure noise, 831
Subacromial space, 683
Subharmonics, 759
Surface acoustic wave, 373
Surface acoustic waves, 515, 665
Surface impedance matrix, 189
Surface wave, 75
Surface waves, 395
Surgery medical gowns, 113
Suspension characterization, 563
Synthetic aperture, 989

Tablet formation, 149
Tautomerization, 591
Test cell design, 57
Textile, 87
Therapy ultrasound, 931
Thermal bioeffects, 907
Thermoacoustic cooler, 53
Thermoacoustic effect, 53
Thermoacoustics, 573
Thermomechanical stress, 417
Thickness cut-off, 807
Thickness measurements, 897
Thin films, 485, 491
Thin layer, 557
Three-dimensional reconstruction, 705
Thresholding, 361
Time delay spectrometry, 349
Time frequency, 383, 507
Time reversal, 775
Time–frequency analysis, 717
Time-domain modeling, 221
Time-domain simulation, 781
Time-domain simulations, 897
Time-domain wave propagation, 919
Tissue characterization, 717
Titanium dioxide (TiO_2), 597
Titanium peroxide (TiO_3), 597
Transducer, 213
Transducer parameters, 459
Transducers, 253, 465
Transient ultrasonic fields, 267
Transmission system, 453
Tumour therapy, 903
Tungsten spirals, 109
Turning, 81

Ultrasonic, 309, 1005
Ultrasonic array imaging, 961
Ultrasonic arrays transducers, 871
Ultrasonic attenuation, 145
Ultrasonic band gaps, 787
Ultrasonic complex vibration welding, 121
Ultrasonic complex vibration welding system, 125
Ultrasonic drawing, 109
Ultrasonic dye, 165
Ultrasonic energy, 113, 161, 165
Ultrasonic field, 871
Ultrasonic imaging, 705, 957, 977, 989, 1101
Ultrasonic irradiation, 611
Ultrasonic left-handed materials, 787
Ultrasonic machining, 81
Ultrasonic milling, 43, 47
Ultrasonic NDE, 831, 847, 853
Ultrasonic NDT/NDE, 843
Ultrasonic plastic welding, 131
Ultrasonic polar scans, 173
Ultrasonic relaxation, 629
Ultrasonic sensor, 563
Ultrasonic testing, 283
Ultrasonic transducer, 417
Ultrasonic transmission, 745
Ultrasonic transmitters, 277
Ultrasonic velocity, 527, 629
Ultrasonic wave propagation, 221
Ultrasonic wave velocity, 551
Ultrasonic waves, 837
Ultrasonics, 139
Ultrasonography, 919
Ultrasound, 75, 87, 155, 169, 199, 249, 253, 301, 343, 395, 597, 603, 671, 903, 915, 943
Ultrasound contrast, 1111
Ultrasound contrast agents, 927
Ultrasound imaging, 1, 367
Ultrasound imaging transducers, 1
Ultrasound transmission tomography, 705
Ultrasound velocity, 865
Universality, 1005
USB 2.0, 699
UT simulation and validation, 237
UV irradiation, 603

Variance, 813
Various amine N-oxides, 611
Velocity dispersion, 395
Velocity measurement, 205
Velocity of sound, 531
Vernier techniques, 977
Vibration locus of welding tip, 93
Vibro-acoustography, 537
Vibrometer measurements, 377
Viscoelastic coatings, 877
Viscoelastic measurement, 569
Viscous polymer processing, 479
Volume fraction, 259
Volume measurement, 689
Vulnerable plaque, 723

Wall shear rate, 731
Wash fastness, 161
Wave propagation, 495, 657
Wave reflection, 373
Wavelet, 847
Wavelet transform, 853
Wedge transducers, 395
Weight percent solids measurement, 563
Weighting window, 997
Weighting window synthesis, 425
Weld part, 825
Welding characteristics of coated wire, 121
Welding using fundamental and higher resonance frequencies, 131
Wideband beam pattern, 997
Wigner–Ville transform, 847
Wood, 495

XRES, 17

Youngs modulus and Poissons ratio, 723

Zero group velocity, 957